

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



- 1 BRUNETTI
2 ROSA MULTIFLORA
3 ALF. NEUNER



BOUVARDIAS.



DECEMBER, 1886.

DURING the season of vegetation, now passed, many diverse weather conditions have prevailed in different localities, even in those belts or regions usually noted for equable and somewhat uniform climates. In a general way it may be remarked that the summer temperature has averaged higher, and that the rainfall for the same season has been less than usual; at the same time, at places not far distant, some have had a full average of rain, while at others the crops are below their usual yield for lack of water.

There have been many severe wind storms and great rainfalls over limited areas, that have destroyed not only a large amount of crops and great numbers of buildings, but also the lives of many of our countrymen. These calamities have been so numerous that a brief mention of them even in our pages would occupy much space, and the public has been fully informed of them as they have occurred. The destruction by rain and flood in Texas, in October, was, probably, the worst of the season of that kind; but the greatest disasters have resulted from the earthquakes at Charleston and other parts of South Carolina and other Southern States, which commenced on the night of the 31st of August, and were several times repeated, with less intensity, during September and October.

The summer and early fall months were marked by periods of great heat, usually lasting from two to four days and mostly followed by a short period in which the temperature was abnormally low. All of these extreme fluctuations of the atmospheric temperature, the wind storms, and the floods, and the want of regular rains, have so affected the weather as to cause a great deal of anxiety to farmers, gardeners and fruit-growers throughout the country. While one portion of Texas has suffered terribly from a rain storm and flood, another part of the same State has experienced the worst drought ever known, utterly destroying the crops, and making the inhabitants, for the present, dependent upon assistance rendered from a distance.

At the present time, November, in very many places in the Northern and Eastern States, there is a deficiency of water in the soil; in some cases it is with great difficulty that sufficient water can be obtained for drinking, domestic uses, and for the animals. It is very probable that before winter weather sets in we shall have an abundant supply; but it may not be so everywhere it may be needed, and it may not be unprofitable to consider the welfare of some kinds of vegetation in the event of extreme cold accompanying a drought. Experience has shown that under these circumstances trees and

shrubs are extremely liable to injury and destruction, and this is especially the case where there is a lack of snow on the ground. The explanation of this phenomenon we consider to be as follows: When the plants are supplied with sufficient water, the living substance, or protoplasm, in each cell absorbs it, filling the cell, and thus protecting the woody tissue; when the supply of moisture is deficient the protoplasm shrinks up into a small space, leaving the other tissues unprotected, and liable to injury by frost. This is a correct statement of the condition of a tree in regard to its limbs and branches both when it has a good supply, and when it has a deficiency of water.

The injury to trees that we are considering occurs in various degrees, lightest when confined to the terminal shoots and the branches, greater when the body of the tree is also injured, still greater, as is sometimes the case, when the roots are injured to the extent of leaving them in an unhealthy condition, though able to survive in a poor condition for a few years, and greatest of all when the tree or shrub perishes outright, or at least the following spring.

The question now occurs, how such a calamity can be averted, if it should be seen to be impending, or, at least, how it can be mitigated.

In the case of our Roses, which are delicate shrubs with fine wood, and thus particularly liable to winter injury, we carefully lay down the tops, securing them with pegs or otherwise, and then draw-up a good hill of soil around each plant, and lastly cover the whole with straw or leaves and evergreen boughs. Tall Roses are sometimes tied snugly to a stout stake and then securely bound up in straw, and then some litter is thrown over the roots. But our highly prized specimen lawn trees, or even shrubs of much size cannot, in the nature of the case, be thus treated, nor can our Peach, and Pear, and Cherry, and Plum, and Apple orchards; the stem and branches must take the weather for good or for bad. Raspberry and Blackberry canes can be laid down, as they often are, to their great advantage. So, also, Grape vines can be pruned in autumn and the remaining canes laid on the ground and be fastened down by a stone on the end or otherwise. In the severe winter cli-

mate of Northern Illinois, Iowa and Wisconsin the cold winters have been very destructive to Apple trees, even the hardiest kinds. It has been noticed there that portions of orchards have been destroyed in some seasons where the wind had blown off the snow, but where the snow had lodged and remained no injury was done. Snow is a great protection to the roots of plants. Some flowering shrubs that frequently are somewhat injured in this latitude are quite hardy, never suffering in the least, in the far colder climate of the north of Ontario and Quebec, for the reason of the large amount of snow in those countries: through the winter season. Turnips left in the ground in winter in this region are quickly frozen, and decay commences as soon as they thaw; but in Manitoba, that region that seems to us of little less than Arctic severity, the farmers leave the Turnips in the ground during winter and turn the sheep in among them to eat them off under the snow. Thus the protective efficacy of snow is apparent.

Our advice, then, is, if a severe winter is feared, to take advantage of the snow as a protective covering of the roots of our orchard trees and vineyards. This can be done by tramping down the first snow that comes, or, what would be more efficient, by means of a horse, dragging a light roller over the snow in orchard and vineyard, and repeating it with every new snowfall, in order to compact it and keep it from blowing off. Such protection would not always be available, but often it might be made so, and serious loss averted.

It cannot be supposed that a snow covering would, in an extreme case, be efficient against harm to the smaller branches or the fruit buds, but it might save the roots, and thus, through them, sustain the whole cellular system of the stem or trunk and the main limbs. Such treatment might not ensure a crop of Peaches, but it might save the Peach orchard from destruction. If the roots can be protected from injury the vitality of all parts of the tree is sustained to some extent; and this thought leads us back to earlier protective treatment—to the general cultivation. Well cultivated trees and vines—those that have been supplied with manure sufficient for their wants, that have had the soil above their roots stirred during

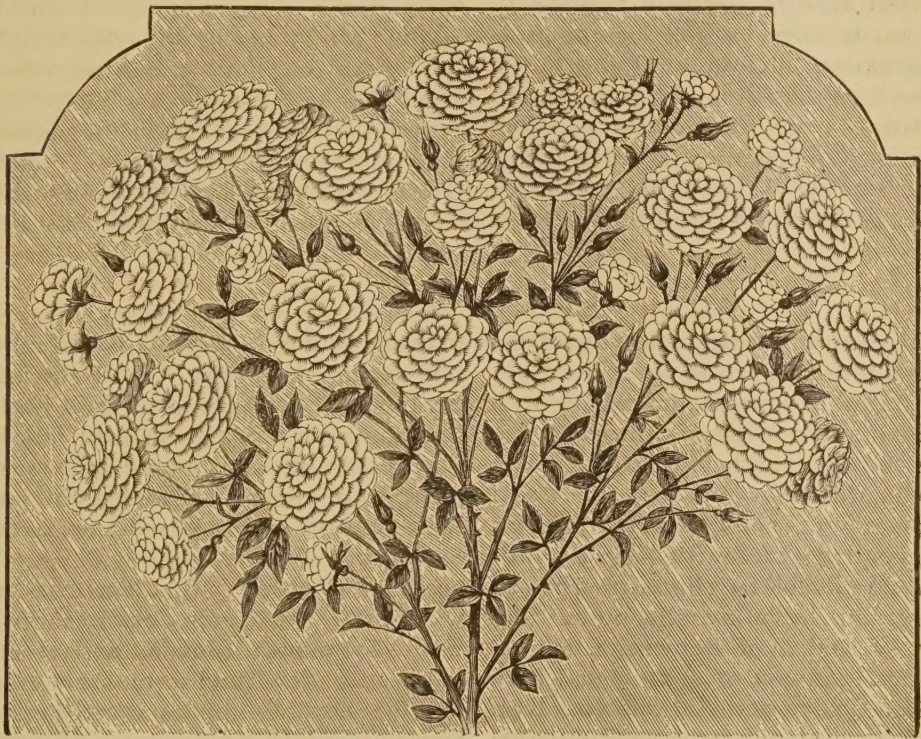
the growing season, that have not been enfeebled by crops too heavy to be borne and matured, in a word, that have had their vigor highly maintained—such trees will be far better able to resist

the rigors of an unusually severe winter, in connection with the adverse conditions of a drought, than those that have been enfeebled by poor cultivation or neglect.

THE POLYANTHA ROSES.

After another season's experience, we are prepared to speak more positively of the good qualities of the Polyantha Roses, although from the first they have proved themselves to be possessed of unusual merits. In our June number a description was given of the nine varieties of this class, which, up to that time, had ap-

peared in the trade. The amount of bloom produced by these varieties during the season is very remarkable. The one variety that blooms most profusely of all is the Little White Pet, which appears to cover itself entirely with flowers. The terminal portion of a branch is here presented, which is only an ordinary sample, showing the full blooms and the opening flowers and the buds. The number of blooms here seen would seem to be enough to satisfy any one for a whole plant, but it must be considered that this is only about a tenth part of the whole plant, and the plant a little, compact bush about a foot in height. It has three marked seasons of bloom, when it is producing full



BRANCH OF LITTLE WHITE PET ROSE.

peared in the trade. The amount of bloom produced by these varieties during the season is very remarkable. The one variety that blooms most profusely of all is the Little White Pet, which appears to cover itself entirely with flowers. The terminal portion of a branch is here presented, which is only an ordinary sample, showing the full blooms and the opening flowers and the buds. The number of blooms here seen would seem to be enough to satisfy any one for a whole plant, but it must be considered that this is only about a tenth part of the whole plant, and the plant a little, compact bush about a foot in height. It has three marked seasons of bloom, when it is producing full

Although we notice thus particularly the White Pet variety as being more floriferous than the others, yet all of them are remarkable for the abundance of their flowers, and all are beautiful.

Another new variety of these Roses originated by BERNAIX, of France, has just been put into the trade, but it will be some time yet before it is much disseminated in this country; this is Mademoiselle Josephine Burland. It is described as a dwarf bush, of medium vigor, covering itself with flowers, which are put forth without interruption during the whole season of fine weather. The flowers are of medium size, very double; color pure white in opening, and

afterwards shading to a carmine rose. We noticed, last month, the use that is now being made in France of seedling Polyantha Roses as stocks for budding other varieties, for which purpose they have proved themselves superior. Still another advance in this direction is now believed to have been made by the origin of a seedling of superior vigor, which is propagated from for stocks, by employing it as a stock plant, and also by raising seedlings from it. This variety is known as *Rosa Polyantha grandiflora*, and it also was originated by BERNAX. The following are the points of interest in regard to it: The plant was produced directly from seed of the true species, *R. polyantha*, without hybridizing or artificial pollenating. It is remarkable for its vigor and its fertility, which is exceptional even for this class of Roses. The flowers are single, white. It fruits abundantly—four or five times more than the original species—and its fruits contain

many more seeds than the wild plant. Sowed in early spring-time, the seeds spring up in about a month, and the young plants in good soil can be grafted the same year. The bush is of a vigor seldom seen, with strong branches, having the appearance of those of *Noisette* varieties. Leaves with five to seven leaflets, which are oval long elliptic, smooth and shining; thorns few, large and crooked; flowers large for this section, single, white, and borne in corymbs. The advantages of this variety as a budding stock are the following: First, they give great vigor to the varieties budded on them, enabling them to bloom very early in the season; secondly, this variety and its seedlings do not sucker, or but very little, and this is a point of very great importance. This description has been taken from a French source, but our Rose-growers will, undoubtedly, be sufficiently interested in it to test the truth of the statements at the earliest opportunity.

BOUVARDIAS.

At this season of the year the florist has no more useful flower than the *Bouvardia*. The plants are now coming well into bloom, and will last through the holiday season, and still later. The handsome double white variety, *Alfred Neuner*, in the colored plate of this month, contrasts well with *Rosea multiflora*, while the softer shade of *Brunetti* is in pleasing harmony with both. The different varieties of *Bouvardia* are all very attractive, and every collection of them should have at least one variety of each color or shade, as well as the double forms. This plant makes its growth so well in the open border during summer, and submits so easily to lifting and potting in the fall that it is one of the easiest to care for.

The method of raising the young plants from cuttings in early spring, and planting them in the open ground when the weather becomes warm and settled, is now quite the common practice, and in this manner one can easily, and with but little care, keep up as much stock of it as may be desired. As the plants grow they are pinched in from time to time to make them grow bushy. In our own practice we cease pinching by the middle of July, in order to get the

plants well into bloom the last of autumn and during December. From the first to the middle of September we lift and pot the plants, or plant them in a bed in the greenhouse, giving them a moist atmosphere, and a heat in daytime of about 65°. *Rosea multiflora* and *Leiantha* commence to bloom very quickly, or within a fortnight after being brought in; these varieties are followed some days later by *The Bride*, *Sanguinea*, *Elegans* and *Hogarth*, later still by *Brunetti* and *Davidsonii*, and the latest to come out are *President Garfield* and *Alfred Neuner*. By continuing the pinching later in the season or until the middle of August, as may be done, the blooming can be retarded a month; by having two sets of plants, one for early and one for late flowering, their season can be easily controlled. The blooming season can also be delayed by keeping some of the plants after potting in a cool place, such as a well ventilated cold-frame facing north, and these can be brought into heat from time to time, as desired.

Alfred Neuner and *Brunetti* are both sports of the beautiful single white variety, *Davidsonii*, and *President Garfield* is a sport from *Alfred Neuner*. Sports may yet produce other new varieties.

CORRESPONDENCE.

SOME CHOICE PLANTS AND FLOWERS.

In autumn I am wont to gather up the observations and experiences of the season for profit hereafter. It may be that some of them will prove helpful to others if recorded.

The pretty evergreen shrub, *Olea fragrans*, belongs to the same order as the Olive tree. It is a native of China, and is highly odoriferous, both in foliage and flower, and on this account is used by the Chinese to flavor and adulterate tea. The flowers are very small, growing in clusters, pure white, and emit a delightful perfume. I have found it a very admirable plant for the winter, as it is not affected by the heated atmosphere. It grew very thriftily the past summer in the open ground.

The *Pentstemon* is an admirable species of plants for the out-door garden and ought to be more generally cultivated. It grows to a height of two feet, and the flowers are profusely borne on long spikes. They are tube-shaped, and in colors of white, blue, scarlet, crimson and pink, beautifully shaded and mottled. They bloom from June to October. They will bloom the first year from seed if sown in March. I prefer to purchase the plants and set them directly in the border as soon as the season will admit. Some of them are sufficiently hardy to endure the winter with protection; others need to be taken up. The genus is an extensive one, and native of North Carolina, Florida, Texas, Oregon, Rocky Mountains and Mexico. The plants thrive best in a light loamy and dry situation. The name is derived from *pente*, five, and *stemon*, a stamen. In order to give you some idea of their beauty, a few varieties are here described. *Herodite* is bright rosy crimson, with a white throat beautifully striped and mottled; every one who saw my plant of this variety greatly admired it. *Jean d'Arc* is creamy white, of dwarf habit. *Flambeau*, deep crimson shaded with rose; has large individual flowers, but very free flowering. *M. de Feydeau*, silvery red

with white throat veined with crimson; large panicles of bloom. *P. grandiflora*, long spikes of light purple flowers. *P. pubescens*, lavender blue.

Peperomia. This name signifies like Pepper, but wherein, I fail to see. *Peper* grows on a vine which attains a height of twenty or more feet if left to run, while the *Peperomias* are mainly low-growing plants, and bear no spicy fruit that I know of. *P. maculosa* is a dwarf variety, grown chiefly for the beauty of its foliage. *P. resedæflora*, or *Mignonette*-flowered, is of quite recent introduction; it bears small, spire-shaped spikes of white flowers at the apex of pink stems; the leaves are thick and velvety. It is but a wee plant, but it has been in constant bloom three months. *P. prostrata* is specially adapted for hanging baskets, as it droops several feet.

The novelty, *Mignonette Machet*, first introduced here this year, I believe, has proved a rival of our pet, *Golden Queen*, which it strikingly resembles in habit, but it is red instead of orange. I always find a place for the old-fashioned *Mignonette*, and have for two years cultivated the *Giant White Spiral*, but none is so satisfactory as *Golden Queen*. *Machet* must henceforth have room to spread itself, for it is very beautiful and sweet.

Among the plants which I have cultivated this season for the first time, is *Pardanthus sinensis*, frequently called the *Blackberry Lily*, because of its black seeds, which, in the form of that berry, remain all winter on the plant, and its spotted, Lily-like flowers, orange colored spotted with purple, which are borne in succession, sometimes for several weeks. The sword-like leaves, similar to those of the *Iris*, radiate from the main stalk in fan-shape. It is an interesting hardy herbaceous plant, a native of China and Nepal.

The new *Pompon Zinnias* have been blooming profusely for nearly two months, and in their varied hues are

much superior to the large, coarse-petalled varieties. The novelty, *Zinnia Haageana*, I specially admire. It is of a dwarf, spreading habit, and bears its small, double, golden flowers in the greatest profusion. Admirable for cut flowers.

Cosmos bipinnatus. This novelty, at least such to many, has luxuriantly grown in my garden this season, and the foliage is elegant. Only the dwarf plants have bloomed; those five and six feet in height have their numerous branches full of buds, which we would despair of seeing bloom were it not for the assurance that "October frosts do not hurt the plants or flowers, and during that month it is the gayest and most showy plant in cultivation." The different species of *Cosmos* are natives of Mexico, and they are usually raised as annuals, but many

have tuberous roots, which can be treated the same as the *Dahlia*. Seed sown in April will bloom in autumn. My plants are hybrids, mixed colors, crimson, pink, white and maroon.

Last year, for the first time, I set out plants and sowed seeds of *Platycodon*. The plants blossomed and the seedlings survived the long, rugged winter, blooming this season. The name refers to the broad, bell-shaped flowers. It is a hardy herbaceous perennial, native of China and *Dahuria*. The color of the flowers is dark and light blue, and white. The plant grows from two to three feet in height, and produces an abundance of blossoms during the summer. The balloon-shape of the unexpanded flowers makes the buds very attractive.

MRS. M. D. WELLCOME.

SOME SUGGESTIONS FOR CHRISTMAS.

Very pretty decorations can be made for Christmas by using heads of Wheat and Oats. They can be mixed with evergreens with good effect. Dried grasses can be made useful in working out some of the smaller designs. Mountain Ash and Bittersweet berries are charming when used in evergreen wreathing. If they are not to be obtained, the seed clusters of the Sumach make good substitutes. If you have autumn leaves in considerable quantities, they will work in charmingly with whatever may be used as the foundation of your decorative work. To use nothing but evergreens gives the place you use them in a somewhat somber look, and touches of bright color are needed to produce a more cheerful tone, and one more fitting to the season. If clusters of leaves or berries are placed wherever festoons of evergreens are fastened against the walls, the general effect will be vastly more pleasing than it would be if they were not used.

For the altar nothing is prettier, especially by lamplight, than crystallized grasses used liberally against a background of evergreen. They sparkle like gems, and suggest natural frostwork. A most beautiful effect can be produced by making the words, "A Merry Christmas," with letters formed of these grasses against evergreen. The background can be made on a strip of cloth of whatever

width is thought desirable, covered with Ground Pine or Hemlock. These are better for such purposes than ordinary Pine or Cedar. This cloth can be suspended back of the pulpit or stage, and when the light falls on the letters they will seem to be formed from bits of icicles. As the grasses are brittle and easily broken after being crystallized, it is well to make each letter on a foundation of pasteboard and put it in place after the evergreen background has been hung up.

Last year we had recitations of a suitable character on Christmas Eve, and when one descriptive of the birth of Christ was given the lights were turned down, and the stage was in a sort of twilight. When the speaker mentioned the star which "came and stood over where the young child lay," at the rear of the stage a star suddenly appeared, and voices in an adjoining room sang the herald angels' song of "Peace on earth, good will to men." The effect was fine, especially the sudden appearance of the star. It was easily produced. A thick curtain had been hung up and stretched smoothly across the end of the hall. Through this there was a star-shaped opening. This had been kept closely covered until the star was referred to by the recitationist. When the proper time came, the screen between the opening and the light behind it was suddenly

withdrawn, and the star shone forth upon the audience. To produce a satisfactory effect, the curtain must be thick enough to prevent any light from showing through, and the screen must be removed as quickly as possible.

Some of the Sabbath School children came on with a recitation about "Merry Christmas." Each one of them had a banner one side of which was blank, while the other side had a letter on it in tinsel, and various colored beads. There were fifteen in all, as many as there are letters in the words "A Merry Christmas." The banner having the "A" on it was carried by the largest boy; those having the letters of the word "Merry" were borne by children a little shorter than this boy, while those on which were the letters from which the word "Christmas" was to be spelled were borne by the smallest children. When they were on the stage the tall boy stood at the rear, the shorter ones in front of him, and the little ones near the front of the stage. While they were reciting, the blank side of their banners were toward the audience. At the end of the recitation, when they presented the wishes of the season, at a signal from some one at the side, all the banners were turned, and the legend, "A Merry Christmas," was presented to the audience. The effect was pleasing, and was especially enjoyed by the children. A little drilling will enable those taking part in this exercise to perform their parts promptly.

A novel and altogether delightful effect was produced by filling three barrels with water in the gallery, from which small rubber hose ran to a basin in front of the stage. The end of each piece of hose was fitted with a nozzle, like that on a watering pot, which divides the water passing through it into spray, if the holes in it are fine, or into drops if they are coarser. One of these nozzles had quite large holes in it, the others had smaller ones. The ends were made fast in the center of the basin, the hose with the coarse nozzle being in the middle and somewhat higher than the others. The water was kept out of the hose until such a time as we wanted our fountain to begin operation, by a faucet at the barrel. When this was turned, the fountain began to play. We edged the basin with evergreen and flowers, and nearly every one

in the audience thought it was simply a floral piece until the water was turned on. A young lady gave a recitation in which some reference was made to a fountain, and at this juncture the water rose up from among the evergreens and flowers in drops and spray, and continued to play until the barrels in the gallery were empty. This was one of the most enjoyable features of the entertainment. It can be produced with very little trouble, and will be perfectly satisfactory if care is taken to place the barrels from which the supply of water for operating the fountain is drawn high enough to give force to the stream running through the hose. Some arrangement must be made by which the water can be conducted away from the basin when it becomes full. A spout can be placed between the fountain and the stage, concealed from the audience by evergreens, and through this the water can be run off into pails or tubs, or perhaps out of doors. By placing the barrels at the end of the gallery nearest the stage, the hose can be hid behind the evergreen decoration, as it runs from them to the basin.

If you have a Christmas tree, that will, of course, close the evening's entertainment. We have, for several years, had a tree for each class in the Sabbath School. It is hardly possible to put presents for all on one tree, and we find that they give more pleasure to the little ones when they are taken from the tree than they will if taken from a heap on the table. We fit the trees into blocks which are large and heavy enough to hold them firmly, and these blocks are mounted on castors. A tree is drawn on the stage, its presents taken off, and it is then removed to make way for another. The little ones' tree should come first of all. In this way all the presents can be hung on the trees and the branches will not be overloaded, and the pleasing effect of the candles will not be spoiled, as is generally the case where but one tree is used and everything is crowded in order to get all the presents on. The name or number of each class is called when its tree comes on the stage, and the class comes forward and stands by the stage while the gifts are being distributed. This does away with much bother and confusion, and the children enjoy it much better.

EBEN E. REXFORD.

PEAR SYRUPS.

A thousand clever economies are to be learned from Old World practice, and a fortunate chance sent me the tourist's mention of the Swiss honey found at Alpine inns, being made of Pear juice. Had I been that traveler, I would have learned the entire process to bring home; however, it was hint enough to start on. The mellow early Pears that made such a picture in the store-room were soon quartered and baking in a covered stone jar in a warm oven. They were not pared, for the honey flavor lies directly under the skin, and not a drop of water was added to be just so much longer in boiling away, for fruit seldom burns in thick stoneware. The fruit dissolved in the mild heat, and was strained through linen cheese-cloth first, and then through flannel, as for jelly, the clear juice being put back to bake in a clean jar. Always do your fruit cookery and preserving in the oven, when possible. The heat surrounding the vessel on all sides hastens and perfects the process delightfully without the loss of flavor from boiling in an ill-covered pan on the top of the fire. The first four quarts of juice were nearly half of sweet Apples, which happened to be strained convenient, and less than one-fourth as much sugar was added, the whole being left in the oven over night. Next morning an hour's boiling brought a quart of clear, deep amber syrup, thick as Maple syrup of the best quality, and very pleasant flavor. My ambition grew bolder, and the next boiling was three and a half quarts of clear Pear juice, left all day and night, closely covered in the stone jar in a mild oven, where the juice scarcely simmered. This is the ideal point of cookery for soups, stews and for securing the complete flavor of fruit. Fully half the flavor of food is lost by the common modes of cooking in rapid heat and carelessly covered vessels. The middle of the forenoon the jar was found to contain a full quart of light honey-colored syrup, that tasted as if rare honey held the perfume and cool freshness of blossom and fruit together. Never was slight experiment a more gratifying success. Without a grain of sugar or drop of water, the slow sorcery of heat had condensed the rich juice into that fluid sunshine, grateful to taste and sight alike.

A pint of the dainty kept a month without sealing, as well as any syrup of cane or Maple, when it went the way of all good things. I tried a little more experimenting, for the slow process of cooking and straining the juice did not suit where quantities of fruit were to be handled, and a fraction of flavor must be lost by it. Considering ways and means, like pressing the quartered Pears in clean burlaps with a rolling-pin, it was found that a lemon-squeezer worked well for pressing fruit in a small way. Half a ripe Pear, cut across between stem and blossom end, could be squeezed easily, the end of the squeezer resting on a table, giving a purchase for easy use, while the juice flowed into a bowl set in the drawer pulled out below. Contrivance lessens the work of fruit preserving in many ways. The squeeze left nothing but the seeds and skins, pulp and juice passing much more easily than a lemon is squeezed. Some kind of a strong portable wooden press for all sorts of fruit is much needed. Galvanized or enameled iron will impart a poor flavor to the juice. There was talk of a glut of summer Pears, but if the Pear honey comes to market there never will be a peck too many raised. For it is a special convenience that fruit too mellow for market makes thoroughly good syrup, the sugar being more developed as the Pears grow older. Wormy or knotty fruit may be cut open in quarters, the bad part quickly cut out and the rest be used for syrup. I had no trouble of skimming the juice, as it was passed three times through flannel, as all juice should be for jelly or syrup. It is much easier to strain a gallon of juice than to skim it, and being reduced by low even heat and tightly covered, there were no impurities or loss of taste, as in rapid boiling in open pans. It will be well worth while for families to make their own Pear honey, which comes in nicely in the fall just when the last Maple syrup loses flavor and shows signs of working. I can't say that it could not be told from the finest hive honey, for one must make believe a good deal to think so, but the color and appearance is that of "California strained," and the taste is an improved honey.—[Copyrighted, 1886. AUTHOR OF FRUIT PASTES AND SYRUPS.

THE GRAND MOSAIC

The twelve months met in high conclave,
And each one told how it was great.
And some were gleeful, some were grave,
And some did whisper, some did rave,
And some were early, some were late.

One told much of a windy war,
And of his sturdy brothers twain—
He said they sped on silver car,
And brought bright gems from Northlands far,
Through driving storms of frozen rain.

Then three did tell of yielding soil,
And peeping buds of modest green,
Of earnest work—good honest toil—
And promise of a royal spoil,
With yellow sweetness set between.

Three sisters came that brought the flowers,
And sweetly told of purpose high;
With pride they pointed to the bow'rs,
And garlands hung on all the hours—
The modest speaker was July.

Anon spoke one, soft voiced and low,
"We three now wait to crown you all;
By art of magic that we know,
Your beauties all condensed we show,
When leaves, grown brown and ripened, fall."

"Now, peace be with you, every one,"
An angel spake while hovering near,
"The Master saith to each, 'Well done,'—
Wisdom thus makes, from cloud and sun,
The Grand Mosaic of the year."

WM. LYLE.

JAPAN PLUMS.

Some varieties of Japan Plums have been planted for several years in California, and they have proved to be so healthy and productive, and the fruit so valuable, that they are now attracting considerable attention.

The variety called Kelsey has been offered for sale in this State a number of

According to the *Pacific Rural* the Kelsey variety was imported from Japan in 1871, by the late JOHN KELSEY, of California, whose name has been given to the fruit as a just tribute to the memory of one of California's pioneer leaders in horticulture, and the first producer of a fruit that has the promise of being one of the greatest acquisitions to our already long list of Plums. The tree first received little attention, the merits of the fruit not being known. They were allowed to stand in the nursery rows until they fruited, after which they were transplanted to the orchard, where there are at present upwards of one hundred trees, which have been in bearing since 1876, and have never failed to produce all the fruit they could carry. The following points of excellence are claimed for it:

1. Its wonderful productiveness is unsurpassed by any other Plum, either native or foreign.

2. It comes in bearing at the age of two or three years, blossoms appearing frequently on yearling trees.

3. The fruit is of very large size, being from seven to nine inches in circumference, and specimens weighing six and a half ounces each; it has a remarkably small pit.

4. It is very attractive in appearance, being of a rich yellow, nearly overspread with bright red, with a lovely bloom. It is heart shaped. It ripens from first to last of September.

5. It is of excellent quality, melting, rich and juicy; its large size renders the paring of the fruit as practicable as the Peach, which is quite a novelty; it excels all other Plums for canning.

As a dried fruit it is destined to take the lead, equal to, if not surpassing, the best dried Prunes. Experiments resulted in yielding nineteen and a half pounds of dried to the one hundred pounds of fresh fruit. In texture it is firm and meaty, and it possesses superior qualities for shipping long distances: it remains solid longer than any other variety.

In August we received a letter from W. A. PRYAL, of North Temescal, California, informing us of some specimens of Japan Plums that had been sent to our address by mail, also some photographs showing the young bearing trees. By



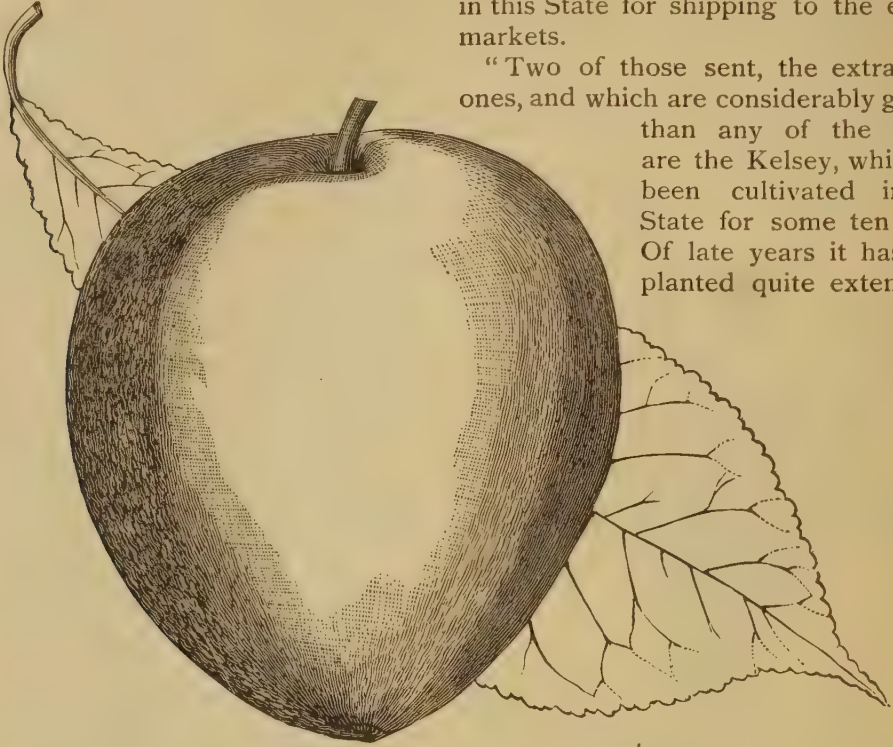
PRYAL JAPAN PLUM TREE, TWO YEARS OLD—
FROM A PHOTOGRAPH.

years, but as little or nothing has been heard of any result from planting it here, the probability is that it is not adapted to the North. P. J. BERCKMANS, of Augusta, Georgia, states, in *Orchard and Garden*, that on September 14th, the specimens on his trees were "yet firm and scarcely colored, and average eight and a half inches in circumference. A few specimens injured by birds ripened middle of August, and were excellent." He remarks that it is a beautiful fruit, that it probably will not mature with him until October, and if that is so it will be too late for New Jersey.

some means the fruit was delayed in the mail and did not reach us until a fortnight after it had been sent, and then

hibition, they remained fresh and firm for four weeks. They give evidence of being the best Plum that can be produced in this State for shipping to the eastern markets.

"Two of those sent, the extra large ones, and which are considerably greener than any of the others, are the Kelsey, which has been cultivated in this State for some ten years. Of late years it has been planted quite extensively.



KELSEY PLUM.

decay had just commenced. The fruit was thick fleshed and of good flavor. The illustrations here given have been prepared from the fruits mentioned and a photograph.

It ripens some weeks later than the other two varieties sent.

"The large yellow one is the Chabot, and is, beyond doubt, a Plum *par excellence*. This and the following ripen



CHABOT PLUM.



PRVAL PLUM.

The following is an extract from Mr. PRVAL's letter:

"This day, my father forwarded you a small box containing specimens of his Japan Plums, which we trust will reach you in good condition. This, we think, they will do, for, last year, while on ex-

about the middle of August, just when all the "old style" Plums are harvested. So far as known there are but two orchards in the State where this Plum has been grown for any number of years, one being that of ANTHONY CHABOT, Esq., the introducer of this fine fruit from Japan, and the other A. D. PRVAL'S.

"The last, the red one, has been called the Pryal Japan, and, like the preceeding, was introduced into the State by Mr. CHABOT. Both of these last named varieties commence to bear at an early age, and it is no uncommon sight to see one-year-old trees loaded with fruit. The fruit of the Kelsey sent you is from a ten-year old tree, while those of the other varieties are from two-year old trees.

"Photographs of the trees from which the Chabot and Pryal Plums were taken have

been sent you, and from these you will be able to form some idea how the trees thrive and fruit in this climate. Mind you, the trees photographed are by no means the thriftiest on our place, and I may here state that Mr. CHABOT has on his mountain orchard trees of these Plums that have made five feet of growth in one season.

"For preserves there is no better Plum than these Japan varieties as they retain shape and color admirably.

W. D. PRYAL.

HARDY DECIDUOUS SHRUBS.

Deciduous shrubs take an important part in the ornamentation of our grounds. There are from one hundred and fifty to two hundred and fifty species and varieties of them named in our leading catalogues, not including named Roses, and they are all more or less in general cultivation. Notwithstanding this long list, there is room for many other new species and more valuable varieties of those already in cultivation, for some kinds of shrubs are objectionable on account of diseases or insect enemies.

Many of the older shrubs are formal in outline, with a foliage that is not especially attractive, and with a short season of bloom. They may be very attractive when in flower, but the remainder of the season they are quite uninteresting. There are a large number of varieties with golden, variegated or purple foliage, and they add greatly to the attractiveness of our grounds by giving a variety to groups of shrubs that would otherwise be green for a large part of the season.

Many of these ornamental foliage varieties have handsome flowers; for bright yellow there are the Golden Elder, *Spiræa* and *Syringa*, all with desirable flowers; for yellow variegated foliage there are the *Cornus mascula*, *Weigela*, Indian Currant; for white variegation, *Cornus sanguinea*, *Corchorus*, *Cornus sericea* and the *Althæas*; there are two forms of *Althæa* with foliage quite similar, one having single purple flowers of good size, the other small purple buds that never develop into flowers. Among the purple-leaved forms there are the Purple Barberry and the Filbert, and the variously colored Japanese Maples.

There are many other shrubs with or-

namental foliage that are valuable acquisitions to the garden; the Sea Buckthorn, *Hippophæ rhamnoides*, having silvery gray foliage, is a good example of this class among shrubs.

There are also very many shrubs with handsome green foliage, some dark and glossy, others heavily embossed with deep veinings, and still others with very fine foliage or with leaves of striking outline.

The Japan Snowball, *Viburnum plicatum*, has beautiful foliage as well as fine flowers, and should supersede the old-fashioned Snowball, which is sometimes so much infested with aphides that it is far from ornamental.

The *Rhodotyphus Kerrioides* is new and not very well known; it is a graceful shrub, well clothed with oval, light green leaves, with deeply set veinings and pure white flowers about an inch in diameter, that are produced nearly all summer, and are very effective dotted through the foliage.

Xanthoceras sorbifolia is a neat shrub that promises to be a great acquisition; the foliage is very handsome, the leaves being pinnate and dark glossy green; the flowers are in heavy upright panicles, each flower three-fourths of an inch in diameter, white with a coppery red center; it appears to be hardy and floriferous.

Berberis Thunbergii is another shrub of recent introduction, of value; it is dwarf and compact, with a very pleasing outline and attractive foliage, flowers and fruit. The small but very numerous leaves are dark green on the older growth, and light green on the new, making a very pretty contrast; they also color very brilliantly in the autumn, and

are followed by bright red berries that hold on long into the winter.

Our native Black Alder is a valuable shrub for winter decoration; after the foliage has fallen the branches are covered with showy red berries that are retained long into the winter; the fine white flowers are also quite pretty in the spring.

Another desirable foreign shrub is Thunberg's *Spiræa*; it is quite hardy and very graceful, with slender, drooping branches thickly clothed with narrow, light green leaves that are retained very late into the fall, and turn a deep shade of red. The whole plant is clothed in spring with fine white flowers, and is attractive at all seasons.

It is difficult for those unacquainted with shrubs to make a selection of the best varieties; most people are familiar with the old-fashioned kinds and select them when purchasing, not caring to try those they are unacquainted with, yet if they had a fine specimen of a new or rare shrub in their gardens its novelty

alone would add to their pleasure. In making a selection the main object to be obtained is to have something attractive throughout the season, and to do so the ornamental foliage varieties should be selected as well as those with showy flowers.

Specimens standing singly of some varieties of shrubs are quite ornamental on a lawn, and for such positions those kinds that do not throw up sprouts and that have a graceful outline and handsome foliage should be selected. The varieties that have been described are suitable for this purpose, and there are also many others.

For massing, the colored foliage varieties are very effective, and for winter decoration those varieties with brilliant berries or brightly colored bark are most desirable.

Home grounds might be much more attractive than they usually are if greater care should be given in the selection and grouping of shrubs and trees.

WARREN H. MANNING.

NOTES FROM A SOUTHERN GARDEN.

Of the fragrant-leaved *Geraniums* there is none sweeter than the apple-scented. It grows, too, so easily from seed, and is so symmetrical in shape, that a well grown plant is "a thing of beauty." I would not advise any one to grow this variety of *Geranium* from cuttings. To get a cutting one has to wait until it branches out preparatory to blooming, and then the leaves dwindle, and the young plant is never of a pretty form. If a symmetrically shaped plant is desired, the blooms should be pinched off, or rather, the young branches that start out to make blooms, for the straggling branches are not pretty, and the blooms, though delightfully fragrant, are very small. If seed is desired, of course, the branches must be allowed to grow. Give the Apple *Geranium* a good rich soil, and a moderate allowance of water, and it will richly reward you. I had a single plant of it in a small tub, that measured more than a foot and a half in diameter, the beautiful light green leaves emitting, when touched, a most delightful odor.

Carnation *La Purite* seems peculiarly well adapted to our Georgia climate, standing the hot summer suns better than the Peter Henderson, or any other variety

I have ever cultivated in the open ground—better even than our common *Pinks*. The exceedingly cold weather we had last winter did not injure young plants, and although mine have been sadly neglected because of long continued sickness in my family, and have withstood quite a long drought without any watering, yet they have produced many flowers, and now present a healthy appearance. The blooms are very fragrant and beautiful in coloring.

My favorite work in the garden is to raise flowers from seed. The true flower lover delights in properly preparing the soil and sowing seeds. Then, when the tiny leaves appear, the little plants are watched and tended with loving care, and become more and more attractive as they grow. The gathering of seeds is also a great source of pleasure. Visions of beds in bloom, and graceful vines will be continually flitting through the mind, and thoughts of friends with whom we wish to share our harvest give an additional charm to our labor. Flower lovers will many times take much care and pains in gathering seeds that they may thus give pleasure to others.

E. B. H., *White Plains, Ga.*

FOREIGN NOTES.

WHITE FLOWERS FOR AUTUMN.

The constant demand for white flowers at all times of the year, but especially in autumn, renders it of the highest importance that cultivators should have a constant succession of them. None of those mentioned below require much artificial heat, and precedence is given to such as are quite hardy. Some of the old-fashioned border plants come out in quite an improved form when accorded liberal culture. A real gem in this way, at present finely in flower, is the white Japan Anemone, which has stems from five to six feet high, crowned with innumerable clear white flowers. It does best when well established, and should be top-dressed with manure in winter. *Dahlia Constance*, belonging to the white Cactus class, is a grand autumnal flower; blooms of it have lately been invaluable for harvest festivals. There is also a small clear white fancy or Pompon kind called Guiding Star which is useful for similar purposes. Asters of the Victoria kind sown late are invaluable in a cut state; when planted near a wall they are easily protected from storms of wind and rain that damage autumn flowers more than frost. Chrysanthemums, such as *Madame Desgrange*, are capable of yielding a long succession of clear white flowers; cuttings taken off now will flower in July next, while those taken off in spring will keep up a supply until early show kinds are ready to take their place. *Pyrethrum uliginosum* ought to be in every garden. It is of strong growth, and well repays liberal culture; where this is accorded the blooms grow large in size, and are produced by hundreds on stems from six to seven feet high. We lift its roots and divide them every alternate year, giving it at the same time fresh soil. *Eupatorium odoratum* produces feathery white flowers in great abundance; old plants of it cut down close in spring like Pelargoniums, and grown out of doors until the blossoms are ready to expand and then put into a greenhouse, are very ornamental. *Begonia miniata* is also a useful plant for furnishing cut flowers

now. It is easily increased from seed or from cuttings struck in gentle heat in spring, and if grown on in cold-frames during summer it will now be in full bloom, and if in a little heat it will keep flowering for a long time. *Abutilon Boule de Neige* is such a capital all-the-year-round bloomer that it must not be omitted from any list of autumn flowers. We generally set our old plants of it out of doors in summer after their long spell of winter and spring blooming, and take them under glass in September, when they are literally covered with bloom. Pelargoniums, especially double whites are most useful autumnal flowers, *i. e.*, if rested in summer, the blooms pinched off, and the soil moderately dry. Thus treated and placed under glass they will flower freely in autumn, and their blooms will be much more pure in color than those from out-door plants.

J. G., in *The Garden*.

THE COOL ORCHID HOUSE.

The cool house temperature should be from 50° to 55° as a minimum until cold weather sets in; when the nights are frosty it may fall to 45° and even to 40°, but the lowest temperature is not safe for some classes of plants, although *Odontoglossum crispum* will do well under it. We begin to find out that many of the best *Oncidiums*, such as *O. Marshallianum* and *O. macranthum*, do better in a cool than in a high temperature, but the plants like to be near the glass, a position which makes all the difference in the case of many cool Orchids. In our house the various forms of *Masdevallia Harryana* do well on the stage, but one variety will not thrive there; the young growths continue to die off when they have grown three inches or four inches; while if suspended from the roof this does not happen. The young growths of *Odontoglossum nebulosum* die off in the same way on the stage, but if the pots are placed in Teak baskets and hung up near the glass, no dying off occurs. I allude, of course, to the winter season; they do not damp off in summer

or in autumn. Many of the best Orchid growers report their *Odontoglossums* and *Masdevallias* in September and October, but after the middle of the last named month I prefer not to disturb them until after Christmas. I have generally recommended comparatively small pots for *Odontoglossum crispum*, but some good growers are now employing much larger ones than those which I have hitherto used. I saw a large house the other day entirely filled with plants of *Odontoglossum crispum* in large pots, and they looked healthy and well.

J. DOUGLAS, in *The Garden*.

NAPOLEON'S FAVORITE FLOWER.

A pamphlet of the year 1815, which the *Temps* has recently discovered, gives an account of how the Violet became the emblem of Imperialism in France. Three days before the embarkation for Elba, BONAPARTE, accompanied by the Duke of Bassano and General BERTRAND, took a walk in the gardens of Fontainebleau. He was still wavering whether he should quietly resign himself to his banishment. The Duke of Bassano tried to point out to him that the time for withdrawal was past. Greatly excited NAPOLEON walked on without speaking, trying to divert his thoughts from the subject. Suddenly he saw close to him, a pretty child of three or four years old, picking Violets and tying them into a bunch. "My little friend," said the Prince, "Will you give me your flowers?" "Yes, gladly," said the boy, and handed them gracefully to him. BONAPARTE kissed the child, and said after a few minutes to his courtiers: "The accident of this occurrence is a secret hint to me to follow the example of these modest flowers. Yes, gentlemen, henceforth the Violet shall be the emblem of my wishes." "Sire," said BERTRAND, "I hope for your Majesty's glory that this resolution will not last longer than the flower from which it takes its origin." The next day NAPOLEON was seen walking about the gardens with a bunch of Violets, which he carried alternately in his mouth and hand. Stopping at a flower bed he stooped down to pick some flowers. The Violets were rather scarce on the spot, and the grenadier CHODIEU, who was on guard, said to him, "Sire, in a year's time it will be easier to pick them; they will then be

more plentiful." BONAPARTE, greatly astonished, looked at him. "You think, then, that next year I shall be back?" "Perhaps sooner; at least we hope so." "Soldier, do you not know that after tomorrow I start for Elba?" "Your Majesty will wait till the clouds roll by." "Do your comrades think like you?" "Almost all." "They may think it but they may not say it. After you are relieved go to BERTRAND and let him give you twenty Napoleon d'or, but keep silence." CHODIEU returned to the barracks, and drew the attention of his comrades to the fact that for the last two days the Emperor had been walking about with a bunch of Violets. "We will call him among ourselves *Père la Violette*." From that day forth NAPOLEON was only called by that name in the barracks. By degrees the secret reached the public, and in spring the adherents of the ex-monarch carried the flower as a memorial either in their mouth or in their button-hole.

WHITE CHRYSANTHEMUMS.

HERODOTUS tells us that now and then pure white oxen were born among the ancient herds of Egypt, and that these were held sacred for sacrifice. To this end it was essential that not a colored hair could be found on their hides! This seems an impossibility, and yet as a fact he assures us that such perfect examples now and then appeared. It is so with Chrysanthemums. Look at all the white varieties ever obtained before Mr. DOWNTON was so fortunate as to rear the snow-white Elaine! Many were considered white and beautiful before its birth, but of all the varieties of Chrysanthemums known to-day—and there are many—Elaine is, so far, the best and most useful of all the Japanese kinds. So, also, when we come to the now popular early or summer-blooming race we have nothing equal to Madame Desgrange, which has indeed very many of the good qualities which distinguish its fairer and taller sister Elaine. These two varieties are irreproachable in their way, nor would we willingly cease to remember Fair Maid of Guernsey, Mons. Astorg, Lady Selborne, and a score of other good late, white-blossomed kinds, and yet there is still room for good seedling white Chrysanthemums of all sorts,

shapes and sizes. I believe Mr. JOHN THORP and Dr. WALCOT, of New York, have some wonderful single or Daisy-flowered white kinds in store for us; but it will be a most exquisite blossom, and a fine-habited plant to boot, that will surpass either Elaine or Madame Desgrange. It might be worth while to offer a special prize for the best new white Chrysanthemum of 1886-7, and I hope it may be done.

VERÓNICA, in *The Garden*.

MUSKMELONS.

A correspondent of *The Garden* says: The Paris market growers cultivate these on a large scale, the markets of that town being supplied with them up to November. Melon culture is certainly a great industry in France; even more than that of the Grape. I look on the Melon as the national fruit there. Grapes are not grown everywhere, but Melons are. Through the length and breadth of France the Melon is the recipient of loving care; it is scarcely regarded as a fruit pure and simple; it is an article of food, and in a sunburnt region gives refreshment, health and strength to millions of thirsty toilers. Two things strike an Englishman with surprise in France—the enormous amount of Melons consumed in towns, and the way in which they are eaten. It certainly jars with our preconceived notions of the proper way of eating this sweet, juicy, aromatic fruit to see a Frenchman scatter salt and pepper on it with an unsparing hand, and yet seventy per cent. of the working men eat it thus. Perhaps it is necessary to use these condiments where the Melon comes into the daily dietary. A friend once told me that I should never know the true flavor of the Melon unless I ate it in that way; it is “so much more wholesome,” he said, “than eating it alone.”

SPECIMEN VALLOTAS.

I have not seen at any time or in any place specimens that surpassed those I grew a few years since, and I do not believe the practice then adopted could be very materially improved. They were of rather large size when they came into my hands, and throughout the whole time I had them the bulbs were not dried off or completely shaken out of the soil. They were repotted annually, the time selected being early in the spring, just before new

growth commenced, and, judging from the results, no period could have been more suitable. The plants were turned out of the pots, the crocks removed, and as much of the old soil taken away as could be removed without injury to the roots or incurring the risk of separating the bulbs, the object aimed at being to give them as much new soil as possible without an increase in the size of the pot. At the same time a few of the smaller bulbs were carefully removed from each specimen if there were indications of their becoming over-crowded, but no great number was removed in any one season. The specimens were then returned to pots of the same size as those previously occupied, and the offsets put into small pots, several together. The compost used was prepared with mellow loam, rich in fibrous matter, flaky leaf-mold, manure from the cow byre, and well nigh rotted to a powder, and silver sand. The loam was used in a comparatively rough state, and the manure, leaf-mold, and sand were added to it in the proportion of one barrowful of each to every four barrowfuls. The pots, which were fifteen inches in diameter, were, as a matter of course, perfectly clean, and provided with sufficient drainage to carry off the superfluous moisture. As they were potted they were placed on the greenhouse stage, and supplied very sparingly with water, until it could be seen that they were commencing to grow freely, when it was increased according to their requirements.

There is no necessity to keep Vallotas under glass throughout the summer as is generally done. It is, in fact, an advantage to place them in the open for eight or ten weeks. Or, in other words, from the end of May until the flower scapes are nearly full grown. An open position was selected for their summer quarters and a bed of coal ashes formed for the pots to stand upon, as the moisture rising from the ashes was found highly beneficial to the plants. They were supplied liberally with water, and received about once a week liquid manure of a moderate degree of strength. In hot dry weather the leaves were occasionally sprinkled, the evening being invariably selected for overhead waterings.

As soon as the flower buds were seen the plants were removed indoors and placed

in a light and airy situation, and every encouragement given them to develop their flower buds satisfactorily, and complete the growth of the bulbs. Soon after the flowers had lost their freshness and beauty the plants were encouraged to rest by a reduction of the water supply, which was accomplished in a gradual manner. During the winter no more water was supplied them than was absolutely necessary to prevent the shrivelling of the younger leaves, and it was found that very little suffices for the purpose when they are brought to the resting state in a gradual manner.

By this very simple course of procedure the specimens were rich in leafage, and produced such immense scapes as to surprise not a little those who saw them for the first time.

G. G., in *Gardeners' Magazine*.

SUNDIALS IN THE GARDEN.

It is a fancy of mine that every good garden should shelter that oldest of all chronometers, a sundial. I think it is CHARLES LAMB who says, "What a dead thing is a clock, with its ponderous machinery of lead and brass, its pert or solemn dullness of communication, when compared with the altar-like structure and the silent heart language of an old dial." The sundial was for centuries a garden guide, bearing witness to moderate labor and temperate refreshment. It was in a way the very epitome of all the proverbs, the absolute ruler of all things between the sun's rising and its setting. I can scarcely explain how it is, and that inability in itself is a testimony to its subtle interest, but the garden having a dial amongst its sweetest blossoms gives to me a greater pleasure than one where the figured plane with its gnomon is not hospitably entertained. I suppose the charm lies in the connection between the sunshine and the flowers, a

union best seen during dull wintry days, when Aconites and Crocuses expand at the first breath of sunshine and shut again as clouds lower for rain. After all, nature is greater than art, and so to-day, even in our mechanical era, we see children clustering round an old sundial just as bees swarm and hum among the blossoms of the garden. The interest of a sundial is perennial, as LAMB says, it is nature's own true measure for bird song, and also for the blossoming of beautiful plants.

VERONICA, in *The Garden*.

SALPIGLOSSIS.

The great variety of quaint-colored flowers amongst the Salpiglossis has made them special favorites of mine, as I find them to be very attractive when tastefully arranged in vases of suitable patterns and dimensions. I have used these flowers rather freely during the summer with sprays of Sweet Briar as greenery, and although they do not last long in a cut state, when lightly arranged they are sure to be admired. I cut them with stems of various lengths, and select the lightest and brightest colors for the center of the vase, with the dark ones round them. When arranging them I never crowd the flowers. Many people use too many flowers in their arrangements. As a consequence they are so crowded that they never look well. In many cases if only a third of the quantity were used the arrangements would be more effective. I fill my vases three-parts full with clean silver sand, and keep it regularly moist by pouring a little water over it every other day. I prefer sand to filling the receptacles with water only, as the sand enables one to keep the flowers in an erect position, as it is not pleasing to see them tumbling over the sides of the vase.

LAURA L., in *Gardeners' Magazine*.



PLEASANT GOSSIP.

AMARYLLIS BELLADONNA MINOR.

Will you please give me, through the *MAJAZINE*, the treatment for *Amaryllis Belladonna minor*? I have had one for four or five years, but get nothing but offsets from it. Have tried all the various treatments of *Amaryllis* I ever heard of, but get no bloom. I have had it, most of the time, in a six-inch pot, in common garden soil with some leaf-mold and sand. I have lost the original bulb with which I started about five years ago, and have raised in that time ten or twelve offsets, which do not grow as large as the original yet. I have given some away and have at present five bulbs, averaging about half an inch in diameter, in a six-inch pot. It remains dormant through the summer, filling the pot with a mass of fibrous roots, the foliage dying down in May or June and starting in September. This year, I put the bulbs in open ground, and found them at taking up in just the condition I put them down in. After potting they have started foliage as usual. I have tried keeping them very wet and warm through the winter, and also keeping them moderately so, but with no difference in result.

T. H. EDDOWES, *Geneva, Illinois.*

The bulb of the *Belladonna Lily* rarely produces leaves till September or beginning of October, at which period the quantity of heat and light is probably insufficient to enable the foliage to do the work necessary for forming a strong flowering bulb; that is to say, in the Northern United States or in England, to which latter country my experience with the *Belladonna Lily* is confined. I have seen it planted in large beds at the foot of a fourteen feet high garden wall with a southern exposure, the object being to start the bulbs earlier in the season than they naturally would. When grown in pots the plants should be placed in a moderate hot-bed in the end of May, so as to cause an early growth of foliage. As the season advances give air by degrees until full exposure can be borne, when all the light and air they can have, without damage from winds or continued rains, should be given. Then treat similarly to any other bulb by gradually withholding water when indications of approaching maturity show themselves. During growth, liquid manure, "weak and often," as CANON HOLE says, may be given with great advantage. The soil used should have a basis of loam, using

a little sand or not, according as the loam is heavy or otherwise, if light the addition of about a third part of decayed leaves or spent Hops, together with some thoroughly decomposed cow manure, will form a good compost. The winter quarters should be a good light window, greenhouse or conservatory. The aim of the cultivator should be to secure vigorous foliage as early as possible in the season, say start gently the latter part of May, judicious exposure of this somewhat forced growth to light and air, all it will bear without injury, frequent doses of weak liquid manure, and if these directions are followed with a bulb placed in the soil recommended, in say a five or six-inch pot, well drained, I incline to think the inquirer, with the persistence and love for plants plainly shown in the correspondence, will be successful.

JAMES BISHOP.

SOME QUERIES.

Please tell me how to keep little green lice off Monthly Rose bushes.

How should Monthly Roses be treated in order to make them bloom?

What treatment should *Lily of the Valley* receive?

Why do *Fuchsias* not bloom when they grow large and seem thrifty, and are not over two years old, and have bloomed but once?

MRS. E. T. T., *Colfax, Wash. Ter.*

The green aphid is usually destroyed in plant houses by fumigating with tobacco or tobacco stems. When only a few house plants are to be rid of them, it may be done with some soapy water in which is a little tobacco water—water in which tobacco has been soaked or steeped. The tops of the plants can be dipped in this water, or it can be applied to the foliage by means of a syringe. If the plants are laid on their sides and a basin or pan is placed under the leaves, they can then be syringed without having the water run down into the soil of the pots, and besides, the water caught in the pan can be used over again on other plants. Such a course of treatment must be persisted in and practiced as often as necessary to keep the plants

clean. The aphides greatly check the growth of the plants.

Monthly Roses planted out in good soil in spring will bloom freely during the whole of the fine season without much attention. In pots, in the house, they need a good turfy soil enriched with some well rotted stable or cow manure, and to be kept in a cool place. The great danger is that they will receive too much heat in a living-room. An average temperature of 50°, with careful and moderate watering, will assure healthy blooming plants.

Lily of the Valley in the open garden, or in slight shade, is a hardy plant that blooms without particular attention. The only requirement is the health of the plants. It sometimes occurs that young plants in quite rich soil make a strong growth for a year or two without blooming, but it is only because of their rank growth, and afterward they will be found to bloom annually.

Fuchsias may be kept and bloomed for a considerable number of years, or until they become unshapely or too large. The blooming takes place after the season's growth has been made. As we do not know the circumstances in this particular case, definite directions cannot be given.

PEPPERMINT.

Can you tell me something about the culture of Peppermint, kind of land necessary, etc., and have you the seeds of the same?

A. S., *De Gerat, Dakota.*

The raising of Peppermint is carried on most largely in Wayne county, of this State, and Lyons, the County seat, is the center of the trade. Propagation is effected by the roots, or rather underground stems, and not by seed. A piece of muck land is best for the crop, but low bottom land that would bring a crop of Corn or Broom-Corn would be suitable for Peppermint. The roots, or stolons, or rooting-stems, as they may be called, are planted in drills about two or three inches deep, made with a marker, the drills being about eighteen inches apart. The string-like roots are laid continuously along the drills, and the dirt drawn over them. A quantity of the roots sufficient to plant an acre will cost from six to fifteen dollars, according to the supply and demand. The ground is cropped for three years, and then cleared

and used for something else. The first year the plants are hoed and the soil kept free of weeds, but after that the plants occupy the whole space. The roots for planting can be obtained most readily from some parties at Lyons, or in that vicinity, whoever they may be.

CHRYSANTHEMUMS IN BOSTON.

The English fashion of holding flower shows for a single plant gains ground, and much is in favor of the custom, for those who really wish to learn what a favorite plant can do when attention is paid it. Chrysanthemums repay the finest care grandly, and the Horticultural Rooms, in Boston, the 10th and 11th of November, were the very court of flowers in delicate and dazzling hues. Snow and gold, amber, silvery lilac and peach, accented by the deep Venetian reds of this flower, made sumptuous effects, as fine as anything to be remembered in those rooms. Dr. WALCOTT'S collection of wonderfully even growth and luxuriance, were not entered for competition, and were so good there was almost a sameness about them. The seedlings raised by ARTHUR STOKES, of Newton, from hand-fertilized seed, were finely grown, but showed no improvement on present favorites. The Fewkes' collection was very large and brilliant, but the palm for varied and beautiful varieties and fine condition belongs to Mr. MALLEY, of Cambridge. Chrysanthemums strongly branched, a yard high and two yards over the bush, and glowing with blossoms, are a very taking sight, especially in the rich red and saffron of Kata Kana, and the rosy lilac of Margot. WM. MARTIN'S tree Chrysanthemums, rising eight feet in height on a single stem, with a well-branched head, showed what can be made of the plant for pleasure grounds. The plants from the Botanic Garden at Cambridge, were admirably trained in rounded masses rather than the hedge-like, even-topped style of the majority shown, and were literally banks of blossoms. These, also, were not in competition. It was a Chrysanthemum show, and little else was admitted or desired, some choice Orchids, and a display of fruit relieving the attention. The single cut blossoms were large as Dahlias, and I hope to give a study of the varieties more at leisure. NORTON

BROTHERS sent cut specimens of the new Roses, which gave good account of themselves. American Beauty proves deliciously fragrant. The Bride has a slight exquisite tea scent, its creamy white tinged on the edges with the faintest blush. The newest Rose, the Puritan, is not a large but a pretty Rose on the Noisette order, whitest of whites, with an irregularity of its close petalled center, quite piquant. It will be a good Rose for bouquets, with *Perle des Jardins* to give fragrance.

SUSAN POWER.

FLORAL GOSSIP.

The only varieties of Fuchsias which I shall try to winter in the conservatory are *Speciosa* and *Rose of Castile*. These will give quite a satisfactory bloom during the season, but I know of no other kinds which are worth growing for flowers in winter. The *Rose of Castile* would bloom all summer, if I would let it, but I do not. I dry it off about the last of June, and keep it in some cool place from that time to the last of September. In consequence of its not getting a liberal supply of water, it will often lose most of its leaves, but when I repot it, I cut it back severely, in fact, there will be but little but the stalk left, and so the loss of foliage is of no account. As soon as the supply of water is increased, it will start to growing again, and by January it will be in full bloom, and from that time on it will give a good quantity of flowers. But without this special treatment it would not be worth bothering with. I use this variety because it is a more constant bloomer than any other kind, except *Speciosa*, that is, it will bloom for a greater length of time. It pays to treat *Speciosa* in the same way, though this variety will bloom quite well when kept growing all the year round, but this is asking too much of it.

An excellent plant for a large vase in the center of a bay window is *Yucca formosa*. This variety does not grow tall, and therefore will not obstruct the entrance of light, as some tall-growing varieties of this class of plants would. It has foliage of a pea-green color, each leaf being about an inch in width and two feet long, and these are produced so thickly on the short, stout stalk that a well grown specimen is a perfect mass of foliage, reaching out in all directions

about the plant. It is valuable for house culture because it is so well able to withstand the effects of dry air, gas and heat.

One of the best plants for a hanging basket is *Othonna crassifolia*. On account of its thick, succulent leaves it is able to stand more drouth at the roots than most plants, and this is what hanging plants have to dread most. It is a good bloomer, and its yellow flowers are very bright and cheerful. It likes a sunny place to hang in, and will not bloom much unless it can have considerable sunshine. But without flowers it is a very pretty and attractive plant, and will be sure to give excellent satisfaction. It grows quite rapidly in ordinary soil, and requires only common treatment.

Imantophyllum miniatum is a plant not very well known, I think, as I have never seen it in any other collection than my own. It resembles the *Agapanthus* very much in its habit of growth and its foliage, so much so that until my plant bloomed, I had an idea that the two were identical. But when the buds appeared I saw that there was a difference. The *Agapanthus* bears its flowers on a tall stalk, while the *Imantophyllum* has a stalk more like that of the *Valotta*, whose flowers its own resemble in shape so much that one would say they were produced from some variety of that plant, but they are not alike in color, those of *Imantophyllum* being a rich shade of orange-red. From three to seven flowers are borne in each cluster, and they last for several days. The foliage is a rich green, and is produced quite profusely from thick, fleshy roots which require a good deal of room. It is evergreen in character, and the plant seems to be one of those which keep on growing the year round, being in this respect like the *Agapanthus*. It has never failed to bloom each year in March. I prize it highly, and I cannot understand why it is not grown more. It is quite as attractive as many of the varieties of the *Amaryllis*, and much more easily grown. Indeed, my plant gets no more care than a *Geranium*, and does as well as I could wish to have it. It likes a good deal of water and plenty of room for its large roots.

I have never had a plant that could out-do *Begonia rubra* in blooming. My old one has not been without flowers for over three years, and it never looked

healthier than it does to-day. It is full of buds, and new branches are being produced all the time. It stands over six feet high, and covers a trellis three feet wide, and its branches reach out on each side of the rack far enough to cover another one of the same size. It sends up shoots from the roots about once a year, and these are so fat and strong that they look more like young stalks of Asparagus than any thing else, before they have grown much. They grow about to the height of the old stalks and then begin branching. I have transferred the plant to a box about three feet deep and eighteen inches square, and the roots seem inclined to try and fill it, and I have no doubt they will do so in time. The rich dark green foliage is always attractive, and the plant would be well worth growing without any flowers; but when you come to add the great cluster of coral-red flowers to the branches heavily laden with vividly contrasting foliage, you have a plant which one is easily justified in being proud of. I have had many offers for my old plant, but for me it has a value that I could not reduce to dollars and cents, and nothing would induce me to part with it. I do not like to sell plants, that is, I do not think I would like to do so. I have never yet taken a cent for any plant, and I have many which I would not give away "for friendship's sake." After having kept them for years they seem like members of the family, and I have a real affection for them, and between us and them there can be a friendship quite as strong as that we have for an animal; at least it seems so to me.

I have been out in the garden looking at the Tea and Bourbon Roses, and I wished that it were as easy to grow a Rose in the house as it is to grow a Geranium. If it could be done, it seems to me that I would have nothing but Roses. Such beautiful flowers as we are having now. All through the summer it was so dry that the Roses just lived, and that was all. Some of them did not bloom at all, but as soon as the rains came and the weather began to be cooler, they began to send up new shoots, and every shoot crowned with buds, and since then we have had Roses to our heart's delight. Bon Silene, Duchess of Edinburgh, Hermosa, Saffrano, Bourbon Queen, Niphetos, Cornelia Cook and Gloire de Dijon;

to go among them and "call the roll" is like going into a convention of great and famous personages, and surely never was one in which more beauty was represented. We have used them every day for our table, for our rooms and for the button-hole, and we have given away scores of them, and still the supply seems inexhaustible.

And the Dahlias are trying to out-do the Roses. They came near dying with the drouth, but the rains revived them, and since then they have been prodigal of their blossoms. We have covered them with sheets and newspapers on every cold night, fearing that frost might put an end to their beauty, and they are full of flowers, and their buds are without number. We hope to keep them for a month yet. We would like to keep them all the year round. It is hard to give up the flowers. *

THE GRAPE, AGAIN.

The following note from Mr. CHARLES A. GREEN, editor of *Green's Fruit Grower*, is sufficiently explicit, and places him in a different light from that in which the article in question, in the *Fruit Grower*, presented him. It is unnecessary for us to say that Mr. GREEN is an enthusiastic working horticulturist, and is doing much to promote fruit culture in its different branches, and would not knowingly misrepresent anything in regard to the subject.

"I noticed your criticism, in the October issue, of a statement made in *Green's Fruit Grower*, to the effect that twenty-five tons of Grapes per acre were grown at the Keuka Lake vineyards.

"The article you allude to was condensed by me from a report made by the *New York Sun*, some time ago. I do not think the *Sun's* report claimed twenty-five tons per acre. The mistake appears to have been the printer's. No credit was given the *Sun*, hence you supposed it was my editorial. The printer occasionally omits credit that I have given, on account of the article being a line too long for the column where he designs to place it. I am careful to give credit for what I reprint from other papers, and careful not to mislead the public with reports of fabulous yields. The tone of my Grape treatise was conservative and not extravagant. Such editorials as appeared were

intended to modify rather than excite expectations. My effort for years has been to teach men not to indulge in great expectations in fruit growing, but on fair living profits, which nearly always follow judicious management.

"I ask that you give me an opportunity to correct the erroneous impression made upon your readers by your critical but courteous remarks."

CHAS. A. GREEN, *Rochester, N. Y.*

BINDING THE MAGAZINE.

We can bind the yearly volume of the MAGAZINE in a handsome cover and return the book, postage or expressage paid by us, for 50 cents. Those sending their numbers for binding will please mark their names on the packages when sent, that we may know to whom they belong. Those who may wish their own bookbinders to do the work can be supplied with covers for 25 cents each.

A GARDEN REPORT.

In your MAGAZINE for November, I notice a report of a garden, that interested me very much. Last winter, we sent for seeds, and when they came I could hardly wait to get them planted. I had never made nor assisted in making a garden. The work was entirely new to me, but I never found anything so fascinating. The neighbors said I coaxed the seed to come up, I looked for their appearance so constantly, and was so delighted when they made their appearance. We had all the vegetables we could use and some to give away, and we did not have ground enough in which to plant the three dollars' worth of seeds which we received. I will send you a report of the vegetables that I kept a written account of. I had no hot-bed, but raised every thing in the open ground.

Kind of Seed.	Planted.	Blossomed.	Used.
Lettuce,	April 15,		May 12.
Scarlet Turnip Radish,	April 15,		May 14.
Vick's Extra Early Peas,	April 19,	May 18,	June 6.
American Wonder Peas,	April 19,	May 20,	June 8.
Egyptian Blood Turnip Beet,	April 19,		June 12.
Six Weeks Beans,	April 19,	May 29,	June 15.
Dwarf Sugar Peas,	April 22,	June 5,	June 19.
Bliss' Everbearing Peas,	April 22,	June 3,	June 30.
Crosby's Extra Early Corn,	April 19,		July 5.
Early Bush Crook Necked Squash,	April 19,		July 7.
Early White Spine Cucumber,	April 19,		July 8.

Z. G., Springfield, Illinois.

THE PAST AND THE FUTURE.

The present number ends the ninth volume of our MAGAZINE. Our friends and subscribers evidently intend that it shall number some years yet. We are thankful to the many contributors who have enriched its pages with their experience and advice, and trust in the future they will continue to share their accumulated wisdom with our other readers, that thus all may be mutually benefitted. As it has been frequently announced that our pages are for the use and benefit of our readers, many of them now understand that they are welcome to space to make known anything of horticultural interest to others, and accordingly avail themselves of this privilege. We hope that this practice will become still more general, and that short items will be sent in from many sources. Those who have a good experience with plants, or blooming

flowers, raising vegetables or fruits of new or old kinds, combatting insects or garden pests, who enjoy some beautiful feature in a landscape, either natural or artificial, who can say some good word for our native plants and trees, or in any way promote the cause of horticulture or the love of nature, we trust will take the opportunity to say a few words in this relation to our numerous readers; in thus informing and assisting others their own pleasure will be increased.

Some of the best practical horticulturists in the country are contributors to our pages. In the next volume their number will be increased, and the variety will continue to be such that something of value will be found for all. Our illustrations, which have always been an important feature, we are striving to make of a quality that will gratify artistic taste while they are means of teaching and educating.

ing that supplement and forcibly explain the text. The colored plates presented monthly, and which constitute another peculiar feature of our MAGAZINE, we shall continue to keep up to the high standard to which they have attained, and to improve with all the advances that may be made in the art of chromo-lithography.

The term of most of our subscribers ends with this number. In accordance with our custom, the MAGAZINE will be discontinued at the end of the term. We hope and expect that all of our old subscribers will show their approval of our work by renewing their subscriptions promptly for the new volume. And, what is more, we hope to have their influence with neighbors and friends to extend our circulation.

For all those who will give their help to make up clubs of subscribers we have prepared a series of premiums the details of which will be found in some pages later on, and to which the attention of all is invited. In this manner we hope to give some recompense for time spent. We know that there are few of our readers who would not willingly do us a favor if they could, and thus increase the usefulness of the MAGAZINE. But we cannot ask them to spend time for nothing, and therefore offer the premiums referred to as a compensation, at least, in part. Please look at the whole offer, and decide to begin now to secure the names of all who are available. It is none too soon to begin at once.

VALUE OF WHITE GRAPES.

At a late meeting of the Summit Co., Ohio, Horticultural Society, a brief report was made of the vineyards at Euclid, near Cleveland, of which there are three thousand acres in all. Two vineyards of Niagara are in bearing. Concords brought two cents a pound the past season, Delawares five cents, and Niagara and Pocklington seven cents. The Early Victor was found to be less profitable than expected. While it is rather earlier than the Worden, the latter is larger and colors up very early.

From this report it appears probable that the opinion will prove to be true which has been expressed by some practical and experienced fruit-growers, that the white Grapes, such as Niagara and Pock-

lington, will be worth no more than Concords when they become plentiful and are no longer a novelty. The ultimate test will be quality and not color, and it is impossible, with the growing discrimination the public is acquiring, that fruits no better than the white ones above named, ranking not at all above the Concord, even if equalling it, should bring a price above fruit of the high quality of Delaware and Catawba. White Grapes, however, like the Dutchess and the Rebecca, should bring a price equal to any in the market. These are of high quality, and, like most fruits of high quality, more difficult to raise, and costing more than those of inferior varieties.

RAISING LARGE POTATOES.

A superb lot of Potatoes which was lately exhibited at a French exposition, and considered worth a gold medal, attracted a great deal of attention. The cultivator gave the following as his method of increasing the size of the tuber: When the young stems have attained about four inches in height all of them excepting two of the central ones are cut away, and these two only allowed to grow. By means of this simple precaution the tubers become much larger than they are in ordinary cultivation.

ULSTER AND BLACK DELAWARE.

A. J. CAYWOOD, of Marlboro, N. Y., writes this of two of his varieties of Grapes: "The Ulster and the Black Delaware are the only two out of twenty-five varieties that were not attacked by mildew this year; and the Ulster has succeeded in the north, where the Concord has frozen to the ground. It is a cross of the Catawba and a wild variety of the forest, making it truly an ironclad."

RENEW SUBSCRIPTIONS.—Do not fail to send a renewal of your subscription to the MAGAZINE. It will afford you pleasure and assistance the year round. Your garden will look brighter for having it, and the house plants be healthier and bloom better.

A HOLIDAY PRESENT.

Remember the MAGAZINE when making presents to friends. Some of them would prize it highly, and enjoy the gift constantly.

FUCHSIA PHENOMENAL.



About a year since particular notice was made in these pages of this large-flowered variety of Fuchsia. At this time we are prepared to say more for it than ever before. The plant is a strong, free grower, making, with proper treatment, a magnificent plant. One would naturally expect that its very large flowers would be produced sparingly; but such is the vigor of the plant that they are borne in the greatest profusion, and a well grown plant in full bloom is a most gorgeous sight. The plant is remarkably healthy, having no symptom whatever of disease. The tubes and sepals of the flowers are a bright carmine color, and the corolla is of a rich shade of violet

turning to purple. To show to the best advantage, a plant of this variety should be contrasted with others of light colored flowers.

Young plants taken in hand the last of January, or in February, can be kept growing freely until June, when they will be ready to bloom. During the growing season they need a warm, moist atmosphere, the temperature ranging from 60°, 65°, or even 70° in the sun; at the same time air should be given whenever it can be without exposing the plants to cold currents. They should always have a place close to the glass, and attention should be given, by pinching, to secure a bushy and symmetrical growth.

BERMUDA LILY.

If any of the readers of the MAGAZINE tried the Bermuda Lily, *Lilium Harrisii*, in the house, last season, I wonder if their experience with it tallied with mine. I had several bulbs sent me in the fall, all large, strong ones, and I potted them in October, in eight-inch pots, using a rich

white and delightfully fragrant, were admired by every one who saw them, and many came in to ask "what those beautiful flowers were?" I would much prefer them to any *Amaryllis*, and they seem to be of the easiest cultivation. Try one, if no more. But if one does as well for you as mine did for me, you will wish you had had half a dozen instead of one.

E. E. R.



LILIUM HARRISII.

soil of loam and barnyard manure. After potting them I set the pots in the cellar where they were kept cool and dark until the roots had had a good chance to grow before the growth of the top began. When I brought them up, in January, the entire ball of earth in the pot was full of vigorous roots, and the tops began to grow right away. I kept them in the coolest corner I could give them, not wanting to force them to an unhealthy growth. They came into bloom in March, and the large, pure white flowers lasted a long time before they began to show signs of decay. Each plant sent up several stalks, and each bore several flowers. Before the flowers on the first stalks had faded, new stalks made their appearance, and these bore flowers later on, but they were not as large as those borne by the first stalks. The great, trumpet-shaped blossoms, of the purest

GRAFT VARIATIONS.

The editor of VICK'S MAGAZINE writes to me that a writer in the *Michigan Farmer* "ridicules your [my] statements and conclusions about the 'Relationship of Stock to Scion,' as embodied in the article published in our September number. It is now your turn to produce the facts in regard to grafting common Apples upon Siberian Crab stocks, which you allude to in the last paragraph of your article."

In reply to this, permit me to say that I did not undertake to produce any large amount of evidence, because the space did not allow it. Nor do I now know how to reply to "ridicule" aimed at a statement of observed facts. I have not seen the article in question, but if it contains only ridicule it is not worth notice. What the writer ought to have done to make his work effective, was to collect the statements of as many persons as possible, who, like himself, would testify that they had never seen or noticed graft variations of the character referred to by me. Such evidence ought to be easily had, for a very large number of men engaged in cultivating the soil never have an eye for anything not strictly connected with immediate pecuniary results, and probably many of these could conscientiously affirm that they never noticed anything of the kind in all their lives.

The editor of the *New England Farmer* is, fortunately, of a different turn, and in a notice of my communication to VICK'S MAGAZINE, of nearly a column in length, he indulges in no ridicule, (probably not being a wit,) but gives the following personal testimony:

"The grandfather of the writer grafted two trees with scions from a summer sweet Apple tree. The first tree bore fruit true to type, but the second, which originally bore a very late sour Apple, produced an Apple unlike either stock or

scion, but somewhat resembling both, the fruit being only moderately sweet, while it was two or three months later in coming into eating condition. It is folly to contend that there was any mistake about this, for at that time there were very few varieties of desirable eating Apples known, and a fairly pleasant eating Apple was thoroughly known by every man and boy in the neighborhood."

Editor CHEEVER also calls attention to the well known fact of the large and noticeable variations in the character of the Apples of one variety grown in the same orchard, which is especially remarkable in orchards comprised of old trees top-grafted. This is most remarked in New England in Baldwins and Rhode Island Greenings, because these are almost universally grown here top-grafted in that way.

Regarding the effects of top-grafting Apples into Crabs, a practice very common in Northern New England and the Northwest, there is no need of weighing much evidence, since every extensive fruit-grower and nurseryman in Minnesota, Northern Iowa and Wisconsin has in his grounds plenty of proof that very marked changes are so frequent as to cause growers frequently to say, when showing a new Apple thus grown, "I cannot say how near this comes to the original in size, color or taste, for it was grown top-grafted in a Crab tree." When, some fourteen years ago, the late and much lamented SUEL FOSTER, of Muscatine, Iowa, sent me a few scions of the now famous Wealthy Apple, they were all inserted in the top of a very thrifty Crab tree growing in my garden. In three years those grafts bore profusely but the fruit was so very small that I forebore to propagate the Wealthy for three years after, or until some other grafts made in Tetofsky trees gave me the variety in its true size. I should make a very moderate statement in saying that this misleading test caused me a loss of a thousand dollars, and I think if my Michigan critic had met with a similar misadventure, he would not now be so free with his wit on the subject.

It is agreed from experimental results, now extending over many years, that when the new Russian Apples, (scions of over three hundred kinds of which have been imported,) are top-grafted into

Crab trees only, no conclusive opinion can be formed of their merits. To this opinion every large propagator consents, among them Prof. BUDD, of the Iowa Agricultural College, A. W. SIAS, of Rochester, Minn., the Jewell Nursery Co., of Lake City, Minn., A. G. TUTTLE and H. H. HOWLETT, of Baraboo, Wis., F. K. PHOENIX, of Delaware, Wis., and, in fact, as I say, every extensive grower. But this is not to say that top-grafts in Crab trees never produce fruit true to type, for they frequently do, and this irrespective of the character of the wood union at the point of inserting the scion. I have learned by experience that some of the Crabs make pretty good stocks, at least for some kinds of large Apples to be grown upon; but which will, and which will not, can only be determined by experiment. T. H. HOSKINS, M. D.

HORTICULTURAL ADDRESS.

The following extracts from the address of the President, PARKER EARLE, before the American Horticultural Society, at its meeting in Cleveland, Ohio, in September last, embrace some points of general interest, and cannot be too widely read:

This society was first organized to meet the wants of the fruit-growers, gardeners forest growers and lovers of rural art in the States of the Mississippi Valley. But horticulturists from most of the States of the East and of the West soon came to us for membership, and they asked us to extend our territorial limits to embrace all of the horticultural interests of the continent, from ocean to ocean. After much deliberation this was done at our large meeting in New Orleans, so that we are now in name, as we had been for years before in membership and in the spirit of our work, an American Society.

* * * * *

Stated in a general way horticulture has its æsthetic side and its economic side. Which has been developing the most rapidly in the last quarter of a century it would be hard to say. But both of these branches have had an unfolding in this country that is quite unparalleled, and would seem marvelous if we did not live in the necromantic age of steam and electricity. We older people remember how bare and lean were the surroundings of ninety-five per cent. of American rural homes thirty or forty years ago;

how their unshaded and weather-beaten sides met all the assaults of the sun and the shock of storms without the intervention of screen or tree, and how if there was a bed of flowers about it was bashfully hidden in some corner as if afraid of getting in someone's way—save only the unblushing Hollyhocks, which in solid phalanx near the front door sometimes defied all rebuke.

If you travel over New England, or the Middle States, or the broad plains of the West to-day, and count the thousands of mansions, villas and cottages, in suburbs, in towns and on farms, which are embowered in shade and sheltered from winds, with bright lawns and blooming flower beds around them; if you will consider the sheltering roadside Maples, the shaded school-house grounds, the hundreds of handsome parks; and how everywhere the love of beauty in the soul of man and woman is in full blossom in tree and plant, in lawn and architecture, you will be certain that the æsthetic side of our horticultural education has been advancing at a wonderful rate. And this is the side of it that is undoubtedly of the most importance to the interests of the people; for far more is it essential that the love and longing for beauty in the hearts of men be stimulated and gratified, than that we should have great variety on our tables, or profits from orchard or garden in our pockets.

On the æsthetic side, horticulture allies itself with all the good influences which elevate the race. It co-operates with education, with art, with moral culture, with religion in expanding whatever is pure and best in human nature. On its economic side it is growing into some of the large industries of the time. Consider what a business the culture of flowers has become within a generation. The commerce in cut flowers alone amounts to millions of dollars annually in some of our great cities. And flower culture as a business is growing rapidly in all of our American cities. Large capital is invested in it, and tens of thousands of persons earn their daily bread in producing and vending products which minister chiefly to the sense of beauty.

* * * * *

Looking at this question from the standpoint of a commercial grower of fruits, it appears to me that one of the

chief problems for our fraternity to solve is how to distribute our products more perfectly—how to reach wider markets. This involves superior methods of handling and packing, and superior means of transportation. There is, as yet, no absolute over-production of good fruits; but there is defective distribution. There were not too many Apples grown in New York and Michigan and Missouri last year, although Apples sold in many of our large markets for prices far below the possibilities of profit; but our system of distribution left half of the families in America with few or no Apples to eat all of last winter. When one or more barrels of Apples go into each farm house and laborer's cottage all over the South, to each miner's cabin among the mountains, and to all the new homes building on the wide plains of the West, the supply of Apples will not be found too large. There have not been too many Oranges grown in Florida and California for the last few years, though many Orange growers have got little profit from their crops; for three-quarters of the people within a practicable commercial distance of these Orange orchards have eaten almost no Oranges in these years. If all the American people were to eat Apples and Oranges daily in their season, the quantity produced would not supply their wants. A more thorough system of distribution with the improved transportation facilities now at command will render this approximately possible. There is no fruit produced in our country so tender or perishable but that it can be carried and marketed half way, if not all the way across the continent, when the best facilities are used; while our most important fruits can successfully be placed in the great markets of Europe.

Hence it appears to me that we are not producing too much, but are marketing too poorly, and that the question of the distribution of our horticultural products is the one most important to the commercial grower. Its successful solution will result in infinite benefits to the people who consume, and in living profits to the often-discouraged class who produce. This problem, together with those relating to the difficulties of production, will keep every fruit-grower wide awake and on the alert, who attempts with some spirit to master the business which he

has adopted. There is no obstacle in the way which energy—intelligent energy—cannot overcome, and I confidently expect to see the schemes of distribution, preservation and marketing now in progress so far perfected that every worthy fruit-grower will be constantly challenged by the profits within his reach to do better work and to master the difficulties of his situation.

* * * * *

But the most important subject to which we can call the attention of the government is the work of forestry. This is the one grand question that overtops all other questions of public economy to-day. The rapid destruction of the vast forest areas of this continent has unbalanced the forces of nature. Our seasons have changed their temperate courses. Destructive floods are followed by consuming drouths. Our crops become more uncertain. Our climate becomes full of extremes. The situation is one that challenges the attention of every thoughtful man, and that every year of timber waste makes worse. The forests of Europe, so far as saved at all, have been largely preserved and built up by the strong arm of the government. And we must look to the State governments and to the National government for the saving and the upholding of our forest interests. What woodlands we have should be preserved by absolute force where the government has the right, and by all encouraging legislation where it has no control. And by every possible measure, State and National, should forest planting be encouraged. There are very few if any of the States but what have passed the limit of safety in the work of deforestation. I cannot here argue this question at length, but a single fact will illustrate the imminent necessity for action. This State of Ohio, where we meet to-day, in 1853 had fifty-four per cent. of its surface covered with forest. In 1884, but seventeen per cent. of the area remained in timber. Thus in a single generation two-thirds of all the forest in existence at the beginning of the period had been destroyed, and but one-sixth of the surface of the State is now protected by the garments with which God covered these hills and plains.

Do you wonder that the valley of the Ohio is almost annually desolated by in-

undation? That climates change, and always for the worse? That winters are harder, and summers hotter, and drouths more destructive? Do you wonder that there are no more sparkling brooks that run and sing all summer, but only muddy torrents, and the dried up beds of streams? The great conservative equalizing power of the forest is gone. The State of Ohio would seem to be making hasty strides toward the agricultural condition of Arabia. And Ohio stands for America.

I quail before the inexorable penalties which nature has in store for all States and people who will ruthlessly destroy so glorious a heritage of forest as the American people once possessed. Without forests no successful agriculture is possible, and no high civilization can be maintained. It surely becomes the duty of every intelligent citizen to use all available influences through State and National legislation, and by the diffusion of light among the people, to save what remains of our American woodlands, and to grow new forests over the vast treeless plains where they are both an economic necessity, and an indispensable factor of a profitable agriculture.

VICK'S IDEAL CAULIFLOWER.

Perhaps a few words in regard to Vick's Ideal Cauliflower will be interesting to the readers of the MAGAZINE. The seed which I bought last spring did well from the time it was sowed in the hot-bed, in March. This Cauliflower is a novelty, indeed, as every plant I set has made a splendid head, and taking all things into consideration it will out rule any other variety. I set the plants on a ridge where the ground had been deeply plowed. I cultivated the same as for Cabbage. I have been cutting the heads since the middle of July, and to the present time, October 25th, notwithstanding the severe drouth we have had, I weighed some heads cut out ready for market that tipped the scale at seven pounds. I still have some fine heads in the field. I would like to hear from others on the subject of raising Cauliflower, and sometime I may tell how I raise it. Perhaps we can help each other in no way more directly than by giving our methods of cultivation in these pages.

P. CARRY, *Sigourney, Iowa.*



OUR YOUNG PEOPLE.

A CHRISTMAS WAIF.

It was the day before Christmas. Annette and Aimee were watering and showering their plants with greater care than usual, "to last over," they said. The sitting-room walls were covered with Ivy vines, which had met and crossed on the ceiling above,* so completely draping the room that wondering visitors forgot to note the pattern and quality of wall-paper. So it was with all the appointments of the different rooms. The abundance and luxuriance of the blooming plants in mid-winter so glorified the house, proving such a pleasing surprise to all who entered it, that no one could afterward recall that the furniture was plain and unpretentious, the floors inexpensively covered, and the whole representing but small outlay.

Across the windows were narrow shelves of pots, which swung away on hinges to the right and left on frosty nights, so that short lambrequins were all the draperies needed. There were groups and pyramids of plants arranged on bracket stands, on small tables and in window gardens. Chrysanthemums were the crowning beauties of one group. A white *Abutilon* hung its bells above gorgeous Pansies. Calla Lilies drooped their foliage over Chinese Primroses. On a round stand by itself was a tall, vase-like pot of *Anthericum variegatum*, its long, white-edged leaves seeming to gush from the center and gracefully droop around, like "a perfect fountain of foliage." Two Orange trees were laden with blossoms, green fruit and ripe. The *Jasminum grandiflorum* was covered with blossoms, and the *Rubra Begonias* and *Rosea grandiflora* varieties were in brilliant holiday attire, while numerous Roses and *Heliotropes* were odorous with bloom.

Fuchsias, Geraniums, Gilliflowers, *Browallias* and Chinese Pinks had received special training for this winter contribution of flowers, while bulbs of Roman Hyacinths had been "forced" into yielding a Christmas tribute.

Ivy Geraniums, Sweet Alyssum, *Thunbergia*, *Kenilworth* and German Ivies, *Oxalis* and other plants fell in cascades of green and bloom from various hanging baskets, and these were crowned with showy growths of *Coleus*—the *Climax*, *Retta Kirkpatrick* and the *Mrs. Garfield* being among the most striking varieties. Twice a month these plants, a few at a time, were fumigated with tobacco in a close box in the shed at the back of the house, to free them from insects, and the thrifty condition of the plants secured a continuance of the practice.

The two girls—so deftly caring for the community of plants around them, changing some from shade to sun, pruning a branch here, pinching back there, and removing spent blooms—were inseparable companions in work, studies and recreations, although only adopted sisters. More than that, they were adopted children of the large-hearted Mr. and Mrs. King, in whose sunny home they had lived since their earliest recollection.

"One girl would be so lonely," Mrs. King had said, in reply to astonished friends, when they took in the second one, "and, besides, its just as well to have enough of one kind to fill a bed." So, afterward, when the widow Haskins, on her death-bed, had given her two-year-old boy to the Kings, without leave or askance, as a sacred trust, fondly believing her precious boy to be the choicest gift that mortal could receive, Mrs. King had often said to her husband that, though they seemed to have all the family they could properly care for, unless they gave up keeping plants, it did seem very lonely for little Selah.

But Mr. King had thought that the sound of the boy's own voice should be company enough for him, for if the name his mother had given him really signified "silence," or "cessation," it was certainly a misnomer, for not a whole minute's silence, unless at meal time, was known in his presence between eye-open in the morning and eye-shut at night.

* A fact.

On this particular day, while the girls were busy, Mrs. King had sent the four-year-old boy to the barn with a basket for the daily supply of eggs, which Pete, the colored boy, was to gather up before they should freeze. But Pete was somewhere else than where he was supposed to be, as usual, whenever Mr. King went to town. A flock of thirty sheep that had just finished their breakfast of chopped Turnips and hay, suddenly took a freak to leave their long shed and stretch their woolly backs in the sun outside. Just as little Selah, with his short, stubby legs, was running along the shovelled snow path, the frisky "leader" of the flock spied him, and running directly at the little fellow, knocked him down and jumped over him. He screamed and attempted to rise, but bump went another sheep over him, and then another and another, until every sheep, as their custom is, had followed in the exact track of their "leader." At first, poor Selah had ducked his head after each bump, throwing it up again in a hasty effort to rise. But the tiny hoofs gave his face and head such blows and scratches that he was glad to lie still until they had all leaped over him.

Selah had heard sleigh bells in the road behind him, and then a man's voice near him shouting to the sheep, and heard the cutting strokes of a whip-lash, as it came down harmlessly on their padded backs, and then a pair of strong arms lifted up the bruised and frightened boy and bore him to the house. Annette and Aimee saw a bearded stranger—seal-skin coated, capped and gloved—approaching with his burden, and while one hastily called Mrs. King, the other threw open the door for his entrance. As soon as he was seated, Selah sprang from his arms and rushed from one to another, crying and scolding, and seeming so indignant, abused and insulted because "*all* the sheeps had runned over him," that the stranger could but laugh as he explained that he had been unable to make the balky creatures deviate one inch from the central line of their course.

Then his attention was completely arrested by the floral decorations of the house, as through open doors on either side he caught glimpses of continuous green and bloom. He asked leave to pass from room to room, until he found

himself apologizing for being in the kitchen, but being there, he could but note the many pots of "sweet-smelling herbs," making pleasant the room, and suggesting savory dishes, and fragrant closets and drawers. A turkey and goose, whose gobbling and waddling days were ended, lay denuded near a heaping dish redolent of Sage and Thyme, the contents of which were to replenish the martyred fowls with their "true inwardness" for the morrow's feast. Nothing escaped the keen eyes of the stranger. Glancing at the girls, and then turning to Mrs. King, he exclaimed:

"You are to be envied, madam! Ah, what wholesome pleasures and employments, what lives of purity and sweet content may be found in a home like this!"

"My children," she modestly answered, "are healthy and happy, and myself and husband are more than content."

Returning through the rooms, on his way out, he thanked them for the pleasure they had given him, and with a last glance at walls and ceiling of sitting-room, remarked:

"You need no alien Holly and Mistletoe here, to make green the Christmas festival. The memory of this home will go with me as long as I live."

Selah had followed the stranger around the house with so much of admiration as almost to stifle his scolding about the "sheeps," and now the gentleman, stooping, examined his bruises, patting and petting him, and gave him a gold piece, saying:

"That is for a Christmas gift. And now let me tell you something to remember. If you will always follow your mother's advice as strictly as those sheep followed their leader, you'll make just the right kind of a man."

He arose with a sigh, passed his hand in a weary way across his forehead, donned his cap and gloves, and then, without leaving his name or asking theirs, he bade them good-day, and leaping into his crimson and gold sea-shell-of-a-sleigh, he dropped his ivory-handled whip in its socket, gathered his wolf robes about him, spoke to his observant, whinnying horse, gave a last bow and was gone. And this wondering woman and daughters, whose plant-bedecked home he had so admired, never saw or heard of him again, except that Mr. King reported that

he had been questioned on his return home by some strange gentleman, as to "the name and general character of the master of the farm cottage, a little way back," and that he had given the name, but had asked to be excused from answering questions of a personal nature, since he himself represented the name given. Upon hearing this, the stranger had begged pardon and passed on.

Selah's tongue was voluble as he recounted to his papa how "*all* the sheeps had runned over" him, and grew red and angry again in his indignant recital of his abuses, but was greatly mollified when Mr. King assured him that Santa Claus would have to give him a present for every bump and scratch. The result was that the gaily painted sled standing beneath the well-filled stocking, that night, was beautifully laden. Even Pete's old mother, who was emulous to serve as chief cook whenever the Kings had a gala-day, had contributed her mite, regretting, as her fat sides shook with laughter, that she "hadn't knowed soonah, so's to done got 'im a toy sheep, jest to h'ar 'im scold." This jolly personage had always seemed greatly amused with Selah since the day she first shook him by the hand and he had hastily wiped it on his clothes and then examined to see if it were smutty.

The next morning he had looked quite disgusted when he first met her, saying:

"You're brack *yet!* I be'n prayin' for you to be fite," at which her rollicking merriment was unbounded, as she gurgled out:

"Suah, he nebah done seen no culled pusson 'fo' dis yer one."

* * * * *

Finally, upon this household has settled the shadowy light of Christmas eve, and soon the stars of the early night hours are twinkling down with gracious benison upon this home for the homeless,

upon this woman who gives mother-love to the motherless, upon this man whose home and purse provide father-care for the fatherless, upon the two girls locked in each other's arms, who have slept not until God had been asked to "bless father and mother," and upon the happy boy whose fortunate lot seems a direct answer to dying prayers.

But the stars glimmer and shimmer anon, as though with tearful eyes they looked down upon other and homeless children—deserted ones, perhaps—or castaways, it may be, upon the world's cruel charity, which clothes without kindness and shelters without love. Ah! wink and blink your pitying tears, sweet stars, for the waifs you see this very night, adrift in this Christian land!

Adrift! and one comes drifting here to this very home the stars so love to shine upon. Softest furs and downiest wraps enfold the stranger. The door-bell's furious ring arouses the startled sleepers. A moment more and the door is opened, but peering eyes discover naught but a basket, which is borne within. All gathered curiously around as the lifted covers disclose a sleeping baby boy! The girls exclaim; their elders are speechless; while Selah shouts, "It's mine, it's mine; Santa Claus has brought me a brother!"

A letter addressed to Mr. King enclosed ten one-hundred dollar bills, and read thus:

"This nameless child is two months old to-day. His foster-parents will christen him. Use the money you find as shall make your wife and daughters happiest. The income of \$12,000 will reach you annually, *provided* the boy is reared and educated like the others until of age, when the principal will be at his disposal—not otherwise. God bless you!"

And so room was made for one more, and Selah had a brother.

MARIA BARRETT BUTLER.

EDITOR'S MISCELLANY.

THE ROUND YEAR.

Of the many pleasant writings on rural topics that find their way to the public, we have read none lately with keener interest than a small volume with a title of the caption above, by Edith M. Thomas. It suggests *White's Natural History of Selborne*, Thoreau's *A Week on the Concord and Merrimack Rivers*, &c., and Alphonse Karr's *Voyage autour de mon Jardin*, something of each and all of these, and yet it has an unmistakable individuality. Those who

enjoy reading about objects of nature will be pleased with this volume, which has lately been issued by Houghton, Mifflin & Co., of Boston. A few extracts are here given:

"Much might justly be said in praise of the Willow. Its graceful, undulating lines show that it has not in vain been associated with the stream. It practices and poses over its glass as though it hoped some time to become a water nymph. Summer heat cannot impair its fresh and vivid green—only the sharp edge of the frost can do that; and even when

the leaves have fallen away, there remains a beautiful anatomy of stems and branches, whose warm brown affords a pleasing relief to November grayness."

Here are some notes on autumn wild flowers.

"With the Aster the Golden-rod. The two set out for a long ramble through the country. Their association is of mutual advantage, inasmuch as each affords a chromatic foil for the other. The complementary colors are very grateful to the eye, and it is certainly no wonder if they suggest the purple and gold of royalty."

"It is a matter of regret that the Eupatorium tribe have not more euphonious common names to entitle them to a place in the poet's flora. The beautiful *E. ageratoides*, powdering open woodlands as with early snow, deserves, but seldom, if ever, receives mention. As for Boneset and Joe pye weed, they are out of the question while retaining these appellations. There is more reason for regret that the Ironweed (*Veronica*,) has not a finer name, since it is one of the richest adornments of early autumn. Its somber purple is a pleasing relief from the gaudy yellows of the season—a bit of Tyre in prevailing Eldorado of color. Yet the Aster and the Golden-rod tribes must be the ones specially beloved by nature, for she makes their days long in the land—even longer than those of her spring-time favorites, the Violet and the Dandelion."

The bees, the butterflies and many other insects are noticed with more or less particularity. The birds come in for a full share of attention. Here are a few lines about the goldfinch:

"Perhaps the most characteristic bird note in these days is that of the Goldfinch, (*Chrysomitris tristis*.) The *tristis* is a touch of poetic justice, since there could be nothing more pensive and haunting, and nothing more pleasing in its pensiveness, than this quivering aspen note, which may be likened to the sound produced on a whistle when the opening is repeatedly and rapidly stopped by the finger-tips. The goldfinch's movements in air are as though it were tossed along, now rising, now falling, with the swell and lapse of invisible waves. Its notes are uttered at each downward inflection of flight, its wings then being brought close to its sides. Despite the naturalist's *tristis*, these jet-and-gold aristocrats among finches are a very jolly company. Their gay dress, to be sure, has begun to look somewhat dingy; but that's no matter! The seediness of autumn provides their harvest-home, which they mean to make the most of, tilting among the Thistles and other rusty weed-tops."

Nature is noticed in all her moods during "the round year," and land and stream, field and flood, winds and waves, trees and the waving grasses, with all their inhabitants, are intelligently and suggestively observed.

NATURE'S HALLELUJAH.

One of the handsomest holiday books of the season has been issued by the publishing house of Lee & Shepard, of Boston. This is *Nature's Hallelujah*, illustrated and arranged by Irene E. Jerome. It consists of a series of illustrations appropriate to the months of April, May and June, and adapted to sentiments expressed in choice selections from different poets, among whose names are those of Whittier, Swinburne, Bryant, Celia Thaxter, Longfellow, Addison, H. H., George McDonald, Bayard Taylor, Lucy Larcom, &c.

Those who have seen *One Year's Sketch Book*, by Miss Jerome, that was sent out last year, or her *Message of the Blue Bird*, will understand that there

is a treat for them in store in this new set of engravings made after her drawings. To those unacquainted with the work of this artist, we can say in one word, that it is something exquisite. Flowers and leaves, birds, insects and landscapes, all present themselves by the magic of her pencil, with a faithfulness and delicacy of touch that is admirable. The poetical selections, as well as the artistic work, indicate a keen observer, and also a devout worshipper of the Unknown through the manifestations of nature, "as seeing Him who is invisible." The whole work is a mingling of poetry, art and devotion, making a song service that is enchanting with its sweetness and joy. The introduction is especially beautiful and gives the key note to the whole.

We love to notice a work of this character and of so great merit; the influence it exerts is to quicken our love of nature; a love so pure as to bring only peace to its possessor. One having the talent and using it to produce such a book can aptly have applied to her the lines of Lucy Larcom, quoted in this volume, in reference to nature:

"Wrapped within her beauty's fold,
Of her song thyself a part,
Plainly are her secrets told
Unto thee, O, pure of heart."

As a gift book, it is appropriate to the winter holidays, and especially so to Easter, but it has no merely temporary significance:

"The harp at nature's advent strung
Has never ceased to play;
The song the stars of morning sung
Has never died away."

AGASSIZ'S WRITINGS.

A handsome library edition of Agassiz's writings has been issued the past year by Houghton, Mifflin & Co., of Boston, uniform with his *Life and Correspondence*, sent out early in the year by the same firm. These works consist of *Methods of Study in Natural History*, *Geological Sketches* in two volumes, *Agassiz's Journey to Brazil*. The *Life and Correspondence*, which is as fascinating as a romance, has already been noticed in our pages. The other volumes may very properly be called handbooks of popular science, as they are written in a manner that cannot fail to attract all readers who have any curiosity whatever to know something in regard to this wonderful world we live in, and the creatures that inhabit it. We can recommend these books as desirable for the family library, and they should, by all means, be found in every school and public library where young people can have access to them.

BEAUTIFUL BOOKS.

No publishing house in this country has ever sent out more elegantly illustrated works than the Illustrated Hymns, Poems and Songs of Lee & Shepard, of Boston, Massachusetts. Those who admire Tennyson, will find among them his *Dora*, *Come into the Garden*, *Maud*, and *Ring out, Wild Bells!* But there are many others of all of which descriptive lists will be sent on application to the publishers.

A LAST WORD.

It is sundown with the Old Year and the present volume of the MAGAZINE. Dear readers, we hope to bid you all a cheerful "Good morning" in our next number. *Le Roi est mort, vive le Roi.*

